CLAIMS

1. An apparatus, comprising:

a scintillator;

a photodetector optically coupled to the scintillator; and

a filter operatively disposed intermediate the scintillator and the photodetector, being adapted to selectively reduce scintillator light having relatively long wavelengths.

2. The apparatus in claim 1, wherein the scintillator is comprised of a material selected from the group consisting of CsI, CsI(Tl), CsI(Na), $CdWO_4$ and BaF_2.

3. The apparatus of claim 2, wherein the filter is comprised of a blue additive dichroic filter.

4. The apparatus of claim 2, wherein the scintillator is comprised of a cyan subtractive dichroic filter.

5. The apparatus of claim 1, wherein the filter is mechanically coupled to at least one of the scintillator and the photodetector.

6. The apparatus of claim 1, wherein the filter is disposed in a housing.

7. The apparatus of claim 6, wherein the filter is disposed in a first housing component and the photodetector is disposed in a second housing component, the first housing component and the second housing component being coupled together.

8. The apparatus of claim 1, wherein the filter is attached to at least one of the scintillator and the photodetector.

9. The apparatus of claim 1, wherein the filter is attached by an adhesive to at least one of the scintillator and the photodetector.

10. The apparatus of claim 9, wherein the adhesive is comprised of one of a silicone and an epoxy.

11. The apparatus of claim 10, wherein the photodetector and the scintillator are optically coupled through the adhesive.

12. The apparatus of claim 1, wherein the filter is a coating disposed on one of the photodetector and the scintillator.

13. The apparatus of claim 1, wherein the photodetector comprises a casing and the filter is disposed on the casing.

14. The apparatus of claim 1, wherein the filter is one of a dichroic filter, a colored glass filter and an interference filter.

15. The apparatus of claim 1, wherein the filter comprises at least one of a high pass filter, a notch filter and a bandpass filter.

16. The apparatus of claim 1, wherein the photodetector comprises one of a photodiode and a photomultiplier tube.

17. The apparatus of claim 1, wherein the relatively long wavelengths comprise wavelengths of scintillation light from the scintillator that produce less than 10% of the intensity that the wavelength of maximum intensity (λ_{peak}) produces.

18. The apparatus of claim 1, wherein the relatively long wavelengths comprise wavelengths of scintillation light from the scintillator that produce less than 5% of the intensity that the wavelength of maximum intensity (λ_{peak}) produces.

19. A filter adapted to selectively reduce light having relatively long wavelengths, and constructed and arranged to be operatively disposed intermediate a scintillator and a photodetector.

20. The filter of claim 19, wherein the filter is constructed and arranged such that all the light that reaches the photodetector from the scintillator passes through the filter.

21. The filter of claim 19, wherein the filter is disposed on a substrate.

22. The filter of claim 21, wherein the scintillator is disposed in a housing, and the substrate is adapted to be connected to the housing.

23. The filter of claim 22 wherein the substrate is metalized along its lateral sides.

24. The filter of claim 19, wherein the relatively long wavelengths comprise wavelengths of scintillation light from the scintillator that produce less than 10% of the intensity that the wavelength of maximum intensity (λ_{peak}) produces.

25. The filter of claim 19, wherein the relatively long wavelengths comprise wavelengths of scintillation light from the scintillator that produce less than 5% of the intensity that the wavelength of maximum intensity (λ_{peak}) produces.

26. A method of detecting radiation, comprising:

projecting radiation onto a scintillator to produce scintillation light;

selectively reducing a portion of the scintillation light having relatively long wavelengths; and

detecting the scintillation light.

27. The method of claim 26, wherein selectively reducing a portion of the scintillation light comprises filtering the light using one of a dichroic filter, a colored glass filter and an interference filter.

28. The method of claim 26, wherein selectively reducing a portion of the scintillation light comprises filtering the light using at least one of a high pass filter, a notch filter and a bandpass filter.

29. The method of claim 26, wherein the step of selectively reducing comprises selectively reducing wavelengths of scintillation light from the scintillator that produce less than 10% of the intensity that the wavelength of maximum intensity (λ_{peak}) produces.

30. The method of claim 26, wherein the step of selectively reducing comprises selectively reducing wavelengths of scintillation light from the scintillator that produce less than 5% of the intensity that the wavelength of maximum intensity (λ_{peak}) produces.

31. A method of facilitating radiation detection, comprising:

providing a filter constructed and arranged to selectively reduce light emitted by the scintillator having relatively long wavelengths, and

positioning the filter in a location to receive light from the scintillator.

32. The method of claim 31, wherein the step of selectively reducing comprises filtering the light using one of a dichroic filter, a colored glass filter and an interference filter.

33. The method of claim 31, wherein the step of selectively reducing comprises filtering the light using at least one of a high pass filter, a notch filter and a bandpass filter.

34. The method of claim 31, wherein the step of selectively reducing comprises selectively reducing wavelengths of scintillation light froom the scintillator that produce less than 10% of the intensity that the wavelength of maximum intensity (λ_{peak}) produces.

35. The method of claim 31, wherein the step of selectively reducing comprises selectively reducing wavelengths of scintillation light from the scintillator that produce less than 5% of the intensity that the wavelength of maximum intensity (λ_{peak}) produces.

36. An apparatus for use with a photodetector, comprising:

a scintillator

a filter adapted to selectively reduce scintillation light having relatively long wavelengths; and

a structure configured to maintain the scintillator and the filter, the structure being adapted to couple to a photodetector such that the filter is operatively disposed intermediate the scintillator and the photodetector.

37. The apparatus in claim 36, wherein the scintillator is comprised of a material selected from the group consisting of CsI, CsI(Tl), CsI(Na), $CdWO_4$, and BaF_2.

38. The apparatus of claim 37, wherein the filter is comprised of a blue additive dichroic filter.

39. The apparatus of claim 37, wherein the filter is comprised of a cyan subtractive dichroic filter.

40. The apparatus of claim 36, wherein the structure is comprised of a housing.

41. The apparatus of claim 40, wherein the filter is disposed in a first housing component adapted to connect to a second housing component in which the photodetector is disposed.

42. The apparatus of claim 36, wherein the filter is attached to the scintillator.

43. The apparatus of claim 36, wherein the filter is attached by an adhesive to the scintillator.

44. The apparatus of claim 43, wherein the adhesive is comprised of one of a silicone and an epoxy.

45. The apparatus of claim 44, wherein the filter and the scintillator are optically coupled through the adhesive.

46. The apparatus of claim 36, wherein the filter is a coating disposed on the scintillator.

47. The apparatus of claim 36, wherein the filter is one of a dichroic filter, a colored glass filter and an interference filter.

48. The apparatus of claim 36, wherein the filter comprises at least one of a high pass filter, a notch filter and a bandpass filter.

49. The apparatus of claim 36, wherein the relatively long wavelengths comprise wavelengths of scintillation light from the scintillator that produce less than 10% of the intensity that the wavelength of maximum intensity (λ_{peak}) produces.

50. The apparatus of claim 36, wherein the relatively long wavelengths comprise wavelengths of scintillation light from the scintillator that produce less than 5% of the intensity that the wavelength of maximum intensity (λ_{peak}) produces.

51. A scintillator system, comprising:

a radiation source;

a scintillator optically coupled to receive radiation from the radiation source;

a photodetector optically coupled to receive scintillation light from the scintillator;

a filter operatively disposed intermediate the scintillator and the photodetector and adapted to selectively reduce scintillator light having relatively long wavelengths.

52. The scintillator system in claim 51, wherein the scintillator is comprised of a material selected from the group consisting of CsI, CsI(Tl), CsI(Na), $CdWO_4$ and BsF_2.

53. The scintillator system of claim 52, wherein the filter is comprised of a blue additive dichroic filter.

54. The scintillator system of claim 52, wherein the filter is comprised of a cyan subtractive dichroic filter.

55. The scintillator system of claim 51, wherein the filter is mechanically coupled to at least one of the scintillator and the photodetector.

56. The scintillator system of claim 55, wherein the filter is disposed in a housing.

57. The scintillator system of claim 56, wherein the filter is disposed in a first housing component and the photodetector is disposed in a second housing component, the first housing and the second housing component being coupled together.

58. The scintillator system of claim 51, wherein the filter is attached to at least one of the scintillator and the photodetector.

59. The scintillator system of claim 51, wherein the filter is attached by an adhesive to at least one of the scintillator and the photodetector.

60. The scintillator system of claim 59, wherein the adhesive is one of a silicone adhesive and an epoxy.

61. The scintillator system of claim 60, wherein the photodetector and the scintillator are optically coupled through the adhesive.

62. The scintillator system of claim 51, wherein the filter is a coating disposed on one of the photodetector and the scintillator.

63. The scintillator system of claim 62, wherein the photodetector comprises a casing and the filter is deposited on the casing.

64. The scintillator system of claim 51, wherein the filter is one of a dichroic filter, a colored glass filter and an interference filter.

65. The scintillator system of claim 51, wherein the filter comprises at least one of a high pass filter, a notch filter and a bandpass filter.

66. The scintillator system of claim 51, wherein the filter comprises one of a photodiode and a photomultiplier tube.

67. The scintillator system of claim 51, wherein the scintillator system is one of a CT system and an RG system.

68. The scintillator system of claim 51, wherein the relatively long wavelengths comprise wavelengths of scintillation light from the scintillator that produce less than 10% of the intensity that the wavelength of maximum intensity (λ_{peak}) produces.

69. The scintillator system of claim 51, wherein the relatively long wavelengths comprise wavelengths of scintillation light from the scintillator that produce less than 5% of the intensity that the wavelength of maximum intensity (λ_{peak}) produces.